

Recovery Planning

(under the U.S. Endangered Species Act)



Judy Jacobs, USFWS Anchorage
March 8, 2006

Why are we here?



- a) Anchorage in March is a major tourist destination
- b) To gain an appreciation for the fine architecture of the Gordon-Watson conference room
- c) To gain Enlightenment
- d) To develop a recovery plan for SWAKSO
- e) All of the above
- f) C and D above

Bowling Shirts??

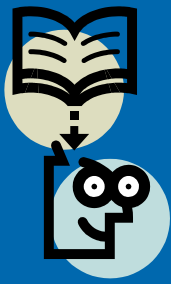


Endangered Species Act of 1973

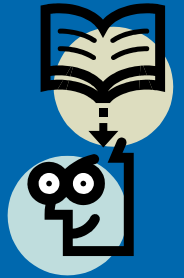
(as amended)



Purpose: ... to *conserve* endangered and threatened species and the ecosystems on which they depend



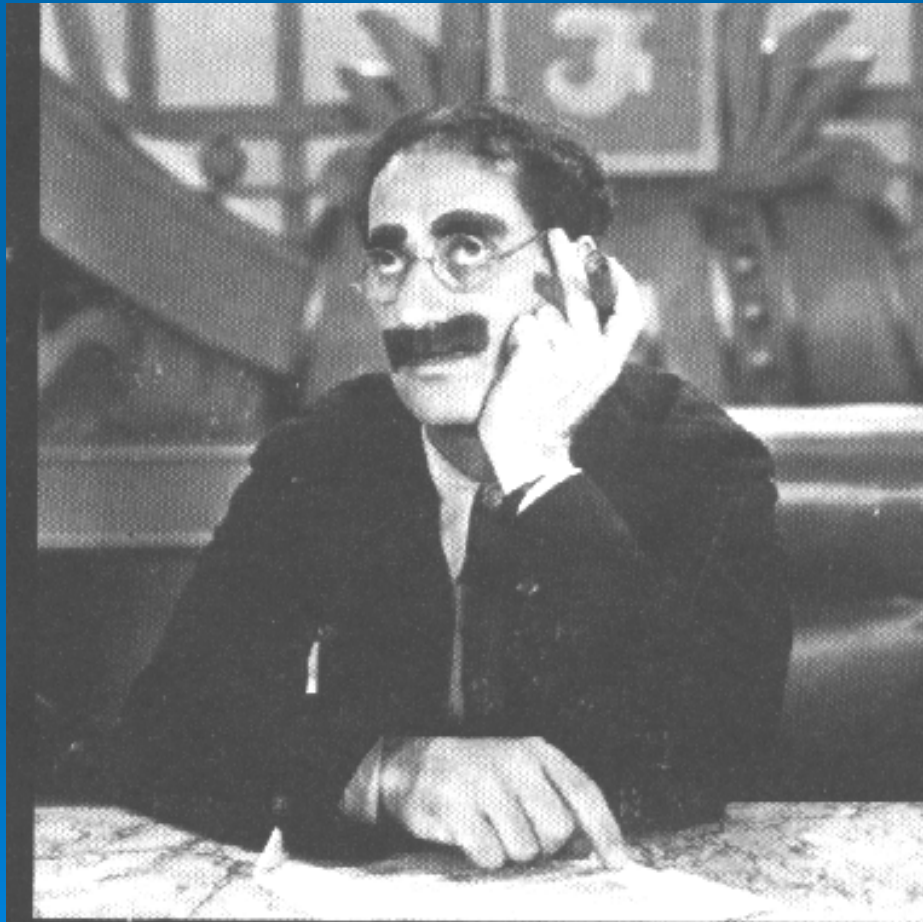
Definitions (ESA sec. 3)



ENDANGERED – a species *in danger of extinction* throughout all or a significant portion of its range

THREATENED – a species *likely to become endangered* in the foreseeable future

WHAT IS RECOVERY ???



Definition (ESA sec. 3)

Conservation:

To use...all methods...which are necessary to bring any [listed] species to the point at which *the measures provided pursuant to this Act are no longer necessary.*



What is “**RECOVERY?**”

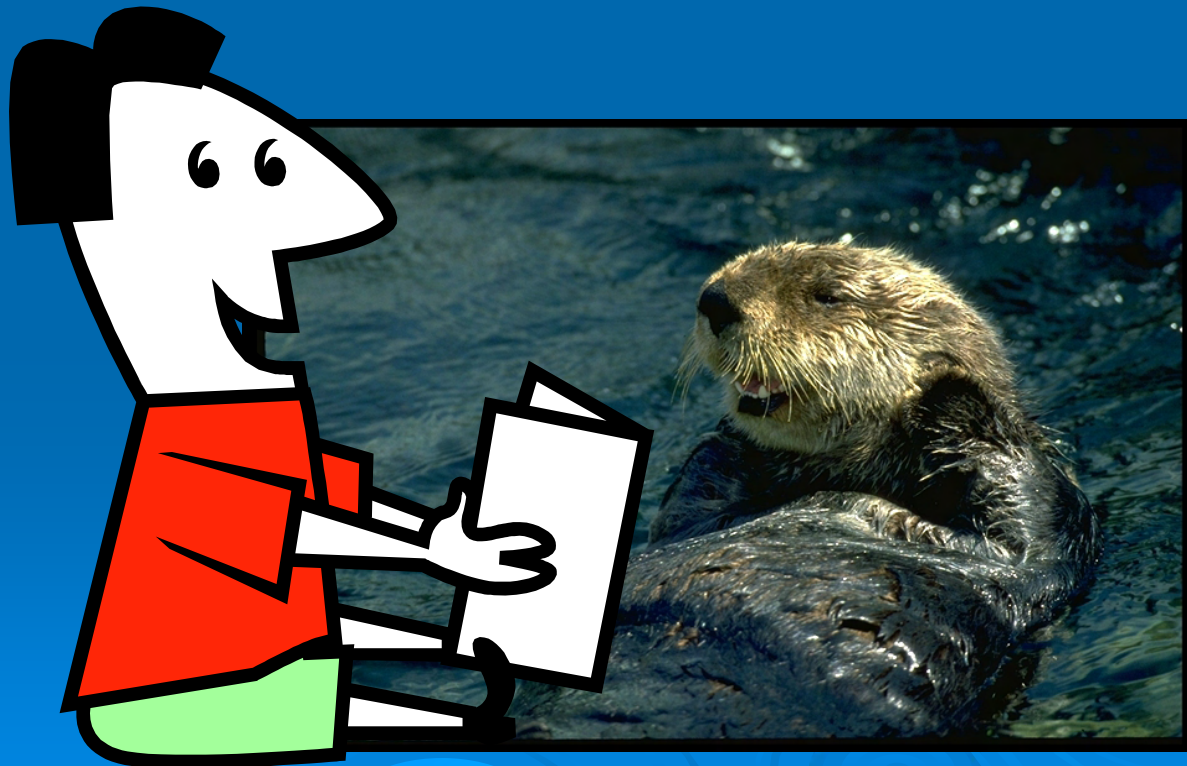
The Ultimate Goal of the ESA

- The process by which the decline of an endangered or threatened species is arrested or reversed, and the threats to its survival are neutralized, so that its long term survival *in nature* can be ensured.

(1990 FWS Recovery Planning Guidelines)

NMFS Recovery Planning Guidelines can be accessed at:

- http://www.nmfs.noaa.gov/pr/readingrm/Recoverplans/rpg_%20nmfs04.pdf



Goal of Recovery

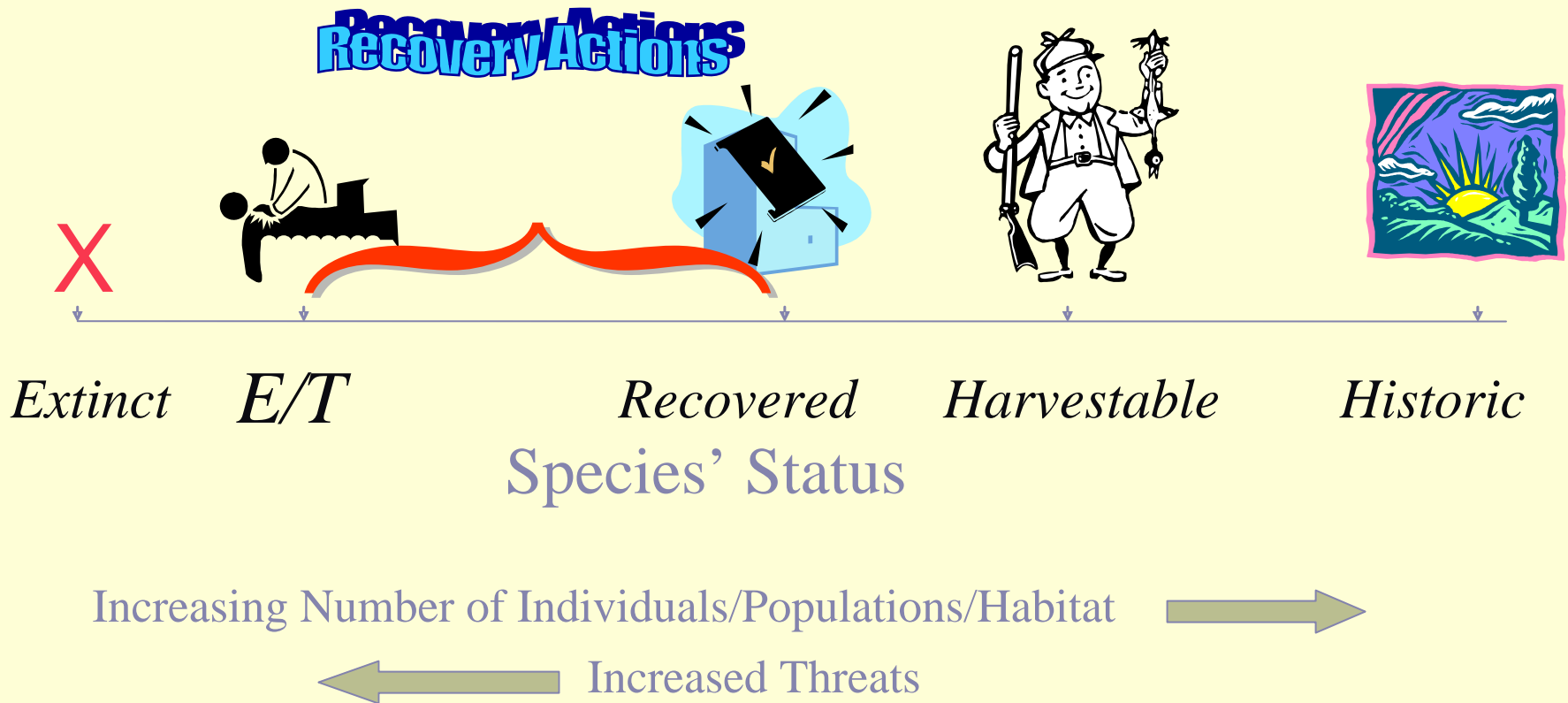
The goal of the recovery program is to restore listed species to a point where they are **secure, self-sustaining** components of their ecosystem, so that the protections of the ESA are no longer required.



CONTEXT OF RECOVERY



Context of Recovery



Where does the idea of
Recovery Plans come from?



The ESA!!

ESA Sec.4 (f)(1)

“The Secretary shall develop and implement plans ... for the *conservation* and *survival* of endangered species and threatened species listed pursuant to this section, unless he finds that such a plan will not promote the *conservation* of the species.”

Recovery Plans are...

- **Guidance** documents (not regulatory)
- *Required* (in the ESA) to include three components:
 - *Description of site-specific actions*
 - *Objective, measurable delisting criteria*
 - *Estimates of time and cost for carrying out actions*
- to be completed 30 months after listing
- to be revised or updated at 5-year intervals

Recovery Plan structures and organizes the recovery effort.

- justifies, prioritizes, and schedules the research and management actions necessary to recover a species
- specifies monitoring (biological and recovery tasks) needed to track progress



Timeline (from final listing)



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Recovery Goal, Objective
and Criteria

Narrative Outline

Literature Cited

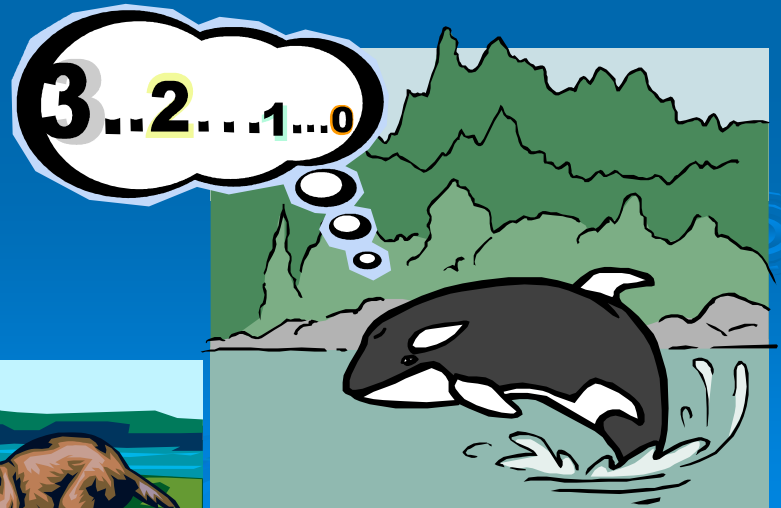
Implementation Schedule

List of Reviewers

Appendices

The 5 ESA Listing Factors

- Habitat destruction/modification
- Overutilization
- Disease or predation
- Inadequate laws or regulations
- Other factors



Recovery

The “Nuts and Bolts” of a Recovery Plan



Goal and Objective/s



- **Goal:** For the purposes of recovery planning, the goal is almost always recovery and delisting of the species.
 - **STAL Goal:** “The goal of this recovery plan is to bring about the recovery of the short-tailed albatross, such that protection of the Endangered Species Act is no longer required.”
- Goals usually can be subdivided into discrete **objectives** which, collectively, describe the conditions necessary for achieving the goal.

Goal and Objective



- **Recovery Objectives** are the parameters of the goal.

STAL Objective

- “The major objective of this recovery plan is to ... describe actions that will result in increasing numbers of the short-tailed albatross and established breeding populations in “safe” locations (i.e. sites with no potential for volcanic eruption and minimal chance of massive erosion).”

Interim Objective



- Can be used when we don't have enough information to develop final objective.
- Should include:
 - immediate goals needed to *prevent extinction*.
 - intermediate goals that *measure recovery progress*.
- Should address how to obtain information needed to identify the ultimate objective of downlisting / delisting the species.

Criteria

- the specific measures used to determine when a species has met the objective and can be downlisted or delisted.
- Criteria should be objective and measurable, but not necessarily simply numerical.



Criteria can consider:

- *decrease in threats* (e.g. “The threats that led to listing, and any new threats, no longer affect the species’ long-term probability of survival.”)
- Amount and quality of *habitat protected* for the species (not limited to public ownership - can include private lands with conservation easements, for example).

Criteria can consider:

- *self-sustaining populations* over *key habitats*
- *stable or increasing populations* (should be defined) over *specified periods of time*
- *probability of population persistence* over a specified period of time.
- populations meeting *specified reproductive and recruitment rates*.

STAL [Draft] Criteria



Endangered to Threatened

The short-tailed albatross may be reclassified from endangered to threatened under the following conditions:

- The total breeding population of short-tailed albatrosses reaches a minimum of 750 pairs; and
- The 3-year running average growth rate of the population as a whole is $>6\%$ for >7 years; and
- At least three successful breeding colonies ($>X$ # breeding pairs each) exist, at least two of which occupy non-volcanic (or extinct volcanic) islands.



Tasks must relate back to the 5 factors considered in the listing package:



- Habitat loss
- Over-utilization
- Disease or predation
- Current laws not adequate
- Any other factors





2002 Manatee RP Factor-based Criteria

Listing/Recovery Factor A: The Present or Threatened Destruction, Modification, or Curtailment of a Species Habitat or Range (Habitat Working Group and Warm-water Task Force identified in other portions of this plan are tasked to further refine these criteria). In order to ensure the long term recovery needs of the manatee and provide adequate assurance of population stability (i.e., achieving the demographic criteria), threats to the manatee's habitat or range must be reduced or removed. This can be accomplished through federal, state or local regulations (identified in Factor D below) to establish and maintain minimum spring flows and protect the following areas of important manatee habitat

- a. Minimum flow levels at the Crystal River Spring Complex, Homosassa Springs, Blue Springs, Warm Mineral Spring, and other spring systems as appropriate, in terms of quality (including thermal) and quantity have been adopted by regulation and are being maintained.
- b. A network of the level 1, 2 and 3 warm-water refuge sites identified in Figure 7 have been protected as either manatee sanctuaries, refuges or safe havens.
- c. Adequate feeding habitat sites (extent, quantity and quality) associated with the network of warm-water refuge sites are identified by the HWVG and are protected.
- d. The network of migratory corridors, feeding areas, calving and nursing areas are identified by the HWVG are protected as manatee sanctuaries, refuges or safe havens.



Makes my head ache

Recovery Plan TASK (aka ACTION) Table

Action			Related Threats	
#	Pri.	Description	(Listing Factors)	Criterion
--	--	-----	-----	-----
--	--	-----	-----	-----
--	--	-----	-----	-----



Humpback Chub



Photo by John Rinne

Humpback chub can survive more than 30 years in the wild.

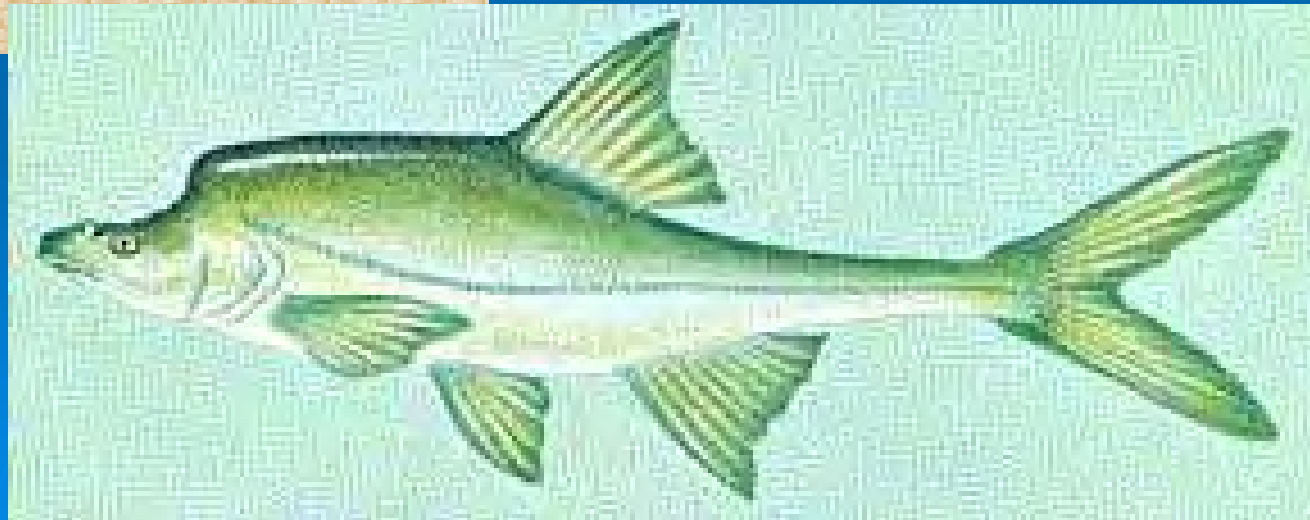


Illustration by Kent Pendleton

Criteria can consider:

a number of specified *recovery units* throughout the species' range (= units designated as necessary to both the species' survival and recovery in a final recovery plan)

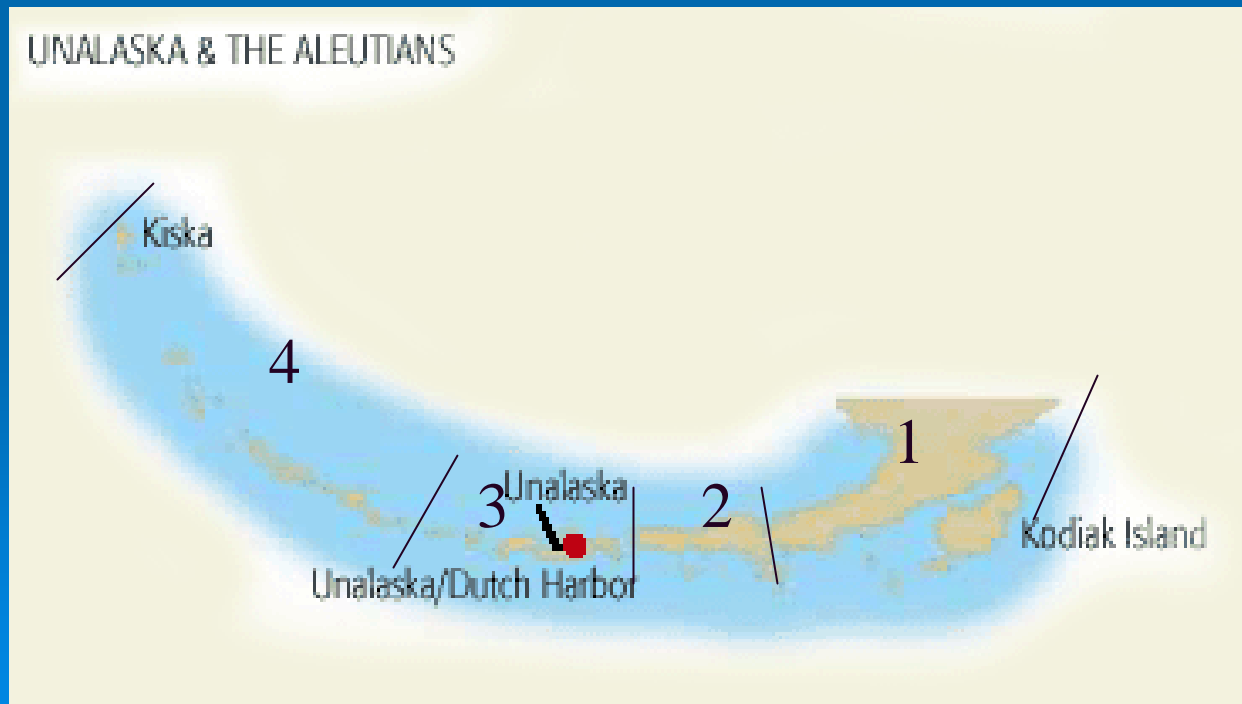


Recovery Units can...

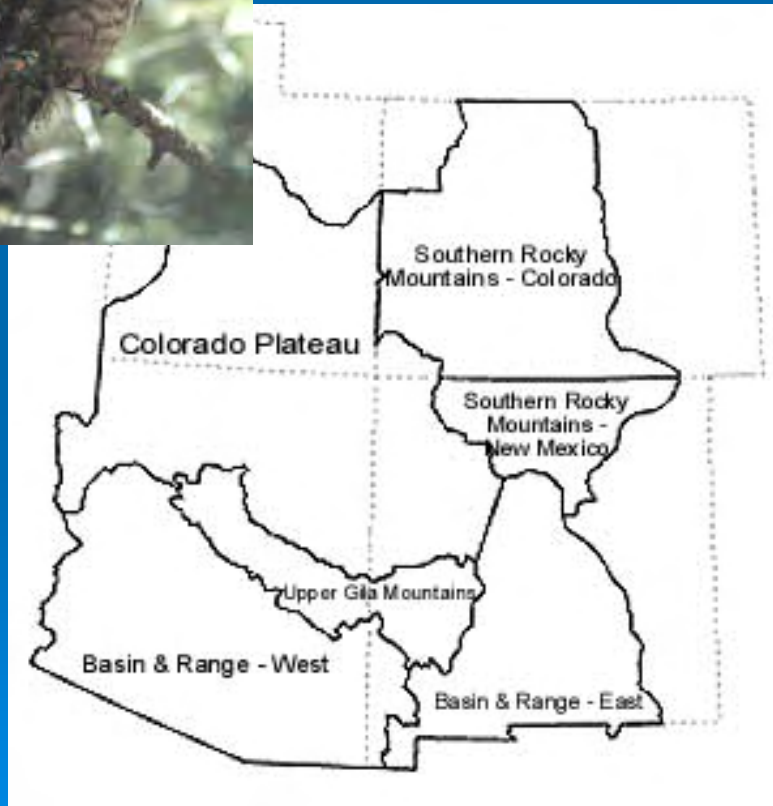
- help to ensure the distribution of a species throughout its range (if that is desirable);
- provide focus if threats or other conditions differ between areas of the species' range;
- provide emphasis on certain geographical areas (if that is desirable);
- be used as a basis for jeopardy determinations in consultations (ESA section 7)

Recovery Units can NOT:

Be delisted separately. All RUs must have reached their respective recovery goals before delisting may proceed



Mexican Spotted Owl Recovery Units



Identified based on the following considerations:

- (1) physiographic provinces
- (2) biotic regimes
- (3) perceived threats to owls or their habitat
- (4) administrative boundaries
- (5) known patterns of owl distribution

Atlantic Coast Piping Plover

RUs delineated by political boundaries (although biologically based). Well-distributed populations are needed to:

- Reduce effects of environmental variation
- Assist in re-colonization
- Increase interchange among RUs



Richard Kuzminski

Adult piping plover (*Charadrius melodus*)

Atlantic Coast Piping Plover

Recovery Plan Criterion 1:

- Increase and maintain for five years a total of 2,000 breeding pairs, distributed among the four recovery units as specified below:

<i>Recovery Unit</i>	<i>Minimum Subpopulation</i>
Atlantic Canada	400 pairs
New England	625 pairs
N Y-N J	575 pairs
Southern (DE-MD-VA-NC)	400 pairs



Questions?



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- Recovery Objective and Criteria
- **Narrative Outline**
- Literature Cited

Implementation

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Recovery Program

(= Narrative Outline/Tasks [Actions])

In general, recovery tasks fall within certain categories, such as:

- habitat conservation / restoration
- research
- surveys & monitoring
- population management
(supplementation/ disease control)
- regulations to protect species



Monitoring

Important task to include in new plans.

1. of Population (monitoring plan)

- To meet recovery criteria
- Post-delisting

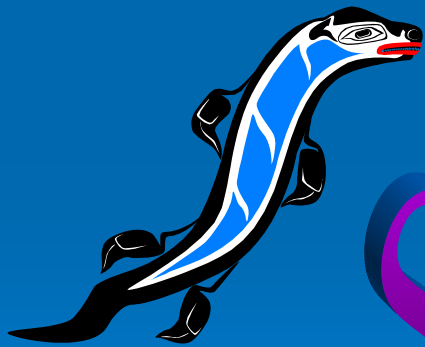
(not necessary to specify in RP)

2. of Recovery Implementation

- Tasks completed

Recovery Program (= Narrative Outline/Tasks)

Generally arranged in



Stepdown Format

1.0. Support ongoing population monitoring and habitat management on Torishima

1.1. Continue annual monitoring of Tsubame-zaki and Hatsune-zaki on Torishima

1.2. Prepare protocols for population monitoring data collection

1.3. Torishima Erosion control

1.3.1. Dig new drainage swale around Tsubame-zaki colony

1.3.2. Maintain existing gabions above Tsubame-zaki colony

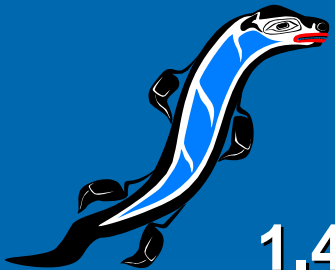
1.4. Maintain decoys & sound system at artificial colonies

1.5. Develop and deploy appropriate leg bands

1.5.1. Develop and deploy abrasion-resistant leg band

1.5.2. Develop and deploy color (or readable stainless) bands

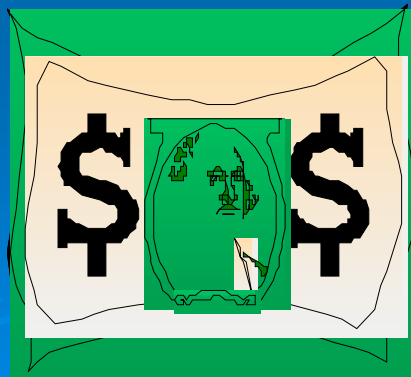
1.5.3. Provide an assistant to help with color banding on Torishima



Narrative Outline/Tasks

Only the “innermost” tasks will show up in the implementation schedule.

Try to break down tasks into “fundable chunks.”



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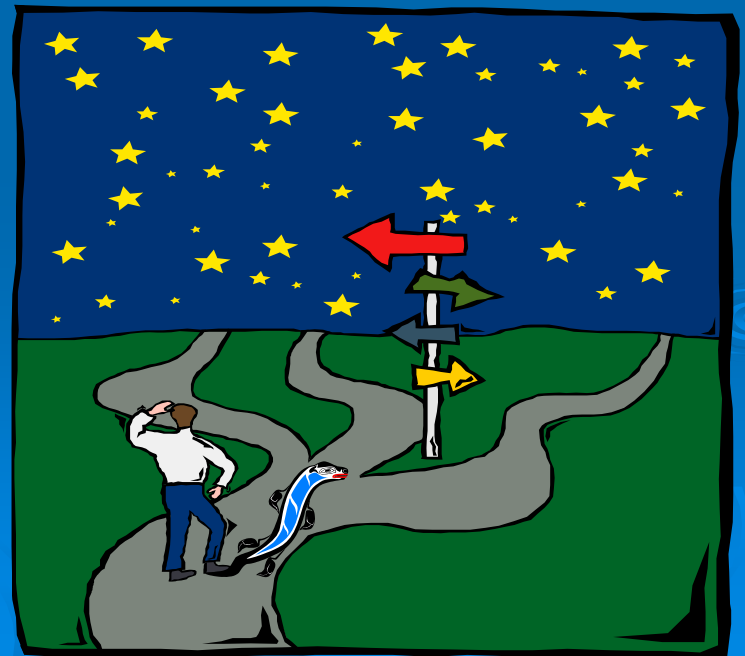
the roadmap that guides recovery

used to:

Secure funds

Establish management priorities

Track implementation



Implementation

Task Priorities

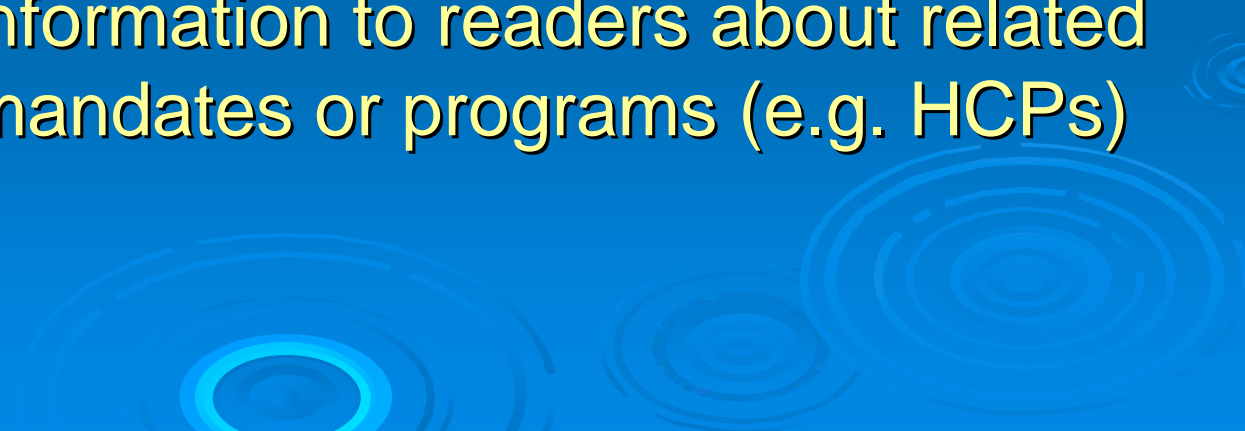
- **Priority 1** – actions that must be taken to prevent extinction or irreversible decline
- **Priority 2** – actions that must be taken to prevent significant decline /adverse impact short of extinction
- **Priority 3** – all other actions needed for full recovery

Implementation Schedule

- presents tasks in priority (not numerical) order.
- *Identifies* lead agencies for each task, but does not *obligate* these agencies to participate.

Appendices

Can be used to:

- include information that is too long or detailed for the body of the plan (e.g. data)
 - provide readily accessible information for some sub-section of the plan (e.g. research or monitoring plan)
 - provide information to readers about related Service mandates or programs (e.g. HCPs)
- 
- The bottom of the slide features several decorative concentric circles in a lighter blue shade, resembling ripples in water, positioned in the lower right and bottom center areas.

EXECUTIVE SUMMARY – SWAKSO RECOVERY PLAN

Species' Status:

Habitat Requirements and Limiting Factors:

Recovery Criteria:

Projected Date of Recovery:

Important Recovery Actions: 1,2,3,4...

Estimated Cost

Total Estimated Cost of Recovery (\$000's):

Year	Action 1	Action 2	Action 3	Action 4	Action 5	Action 6	Action 7	Action 8	TOTAL
2006	79	90	56	310	50	27	3	10	625
2007	557		289	320	110	47	118	7	1448
2008	45		134	182	175	162	18	17	733
2009	45	50	280	182	70	107	23	14	771
2010	15		55	182	50	72	3	17	394

Date of Recovery

